TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Application Number	09/658261
Filing Date	9/11/2000
First Named Inventor	Nimrod Mogiddo
Art Unit	2175
Examiner Name	Thuy N. Pardo

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Total Number of Pages in This Submission	8	Attorney Docket Number	ARC9-2000-0081-US1

ENCLOSURES *(Check all that apply)*

- [ ] Fee Transmittal Form
  - [ ] Fee Attached
- [ ] Amendment/Reply
  - [ ] After Final
  - [ ] Affidavits/declaration(s)
- [ ] Extension of Time Request
- [ ] Express Abandonment Request
- [ ] Information Disclosure Statement
- [ ] Certified Copy of Priority Document(s)
- [ ] Response to Missing Parts/ Incomplete Application
  - [ ] Response to Missing Parts under 37 CFR 1.52 or 1.53

- [ ] Drawing(s)
- [ ] Licensing-related Papers
- [ ] Petition
- [ ] Petition to Convert to a Provisional Application
- [ ] Power of Attorney, Revocation Change of Correspondence Address
- [ ] Terminal Disclaimer
- [ ] Request for Refund
- [ ] CD, Number of CD(s) _____

Remarks

- [ ] After Allowance communication to Technology Center (TC)
- [ ] Appeal Communication to Board of Appeals and Interferences
- [ ] Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)
- [ ] Proprietary Information
- [ ] Status Letter
- [✓] Other Enclosure(s) (please Identify below):
Declaration per 37 CFR 1.131 and 37 CFR 1.68

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	Marc D. McSwain, IBM Almaden Research Center IP Law Dept, 650 Harry Road, San Jose, CA 95120-6099
Signature	*Marc D. McSwain* #44929
Date	8/25/04

CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.

Faxed to (703) 872-9306

Typed or printed name	Marc D. McSwain		
Signature	*Marc D. McSwain*	Date	8/25/04

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: **Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of	:	August 6, 2004
Nimrod Megiddo et al.		
Group Art Unit: 2175	:	Examiner: Thuy N. Pardo
Serial No.: 09/659,261	:	Filed: 09/11/2000
Attorney Docket: ARC9-2000-0081-US1	:	Confirmation No.: 5596

Title: EFFICIENT RETRIEVAL OF UNIFORM RESOURCE LOCATORS

DECLARATION PER 37 CFR 1.131 AND 37 CFR 1.68

Commissioner for Patents
Mail Stop Amendment
P.O. Box 1450
Alexandria, VA 22313

Sir:

As an inventor named below, I hereby declare as follows:

1.   I am an original, first and joint inventor of the above-identified patent application filed on September 11, 2000, which I have assigned to my employer, IBM Corporation.

2.   Prior to February 7, 2000, I conceived the invention as described and claimed in the subject application in the United States as evidenced by the disclosure material attached hereto as Exhibit A.

3.   From prior to February 7, 2000, until the filing of the patent application on September 11, 2000, I exercised due diligence toward reducing the invention to practice, as evidenced by the disclosure material attached hereto as Exhibit
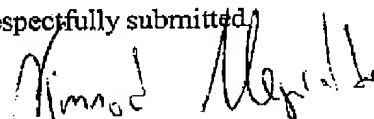
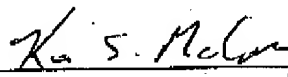*ARC9-2000-0081-US1*   *-1-*

A. The disclosure was evaluated and processed as part of IBM's standard patent processing procedures and culminated in the filing of the patent application on September 11, 2000.

4. The photocopies of the disclosure materials attached to this declaration as Exhibit A are true copies of the original pages showing conception of the invention prior to February 7, 2000 coupled with due diligence from prior to February 7, 2000 to the filing of the patent application.

5. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful, false statements may jeopardize the validity of the application or any patent issued thereon.

Respectfully submitted,

Nimrod Megiddo

Kevin Snow McCurley

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By _Marc D. Mc Swain_

Marc D. McSwain (#44,929)
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Disclosure ARC8-2000-0061

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Last Modified By: Nimrod Megiddo **Last Modified On:** 02/18/2000 03:59:18 PM

* * * IBM Confidential * * *

Required fields are marked with the asterisk (*) and must be filled in to complete the form .

Summary

Status	Under Evaluation
Processing Location	ARC
Functional Area	DPB - Computer Science - (A.K. Chandra)
Attorney/Patent Professional	Richard Ludwin/Almaden/IBM
IDT Team	Richard Ludwin/Almaden/IBM; Suzanne Pautlitz/Almaden/IBM
Submitted Date	02/07/2000 12:13:23 PM
Owning Division	
PVT Score	To calculate a PVT score, use the 'Calculate PVT' button.
Incentive Program	
Lab	
Technology Code	

Inventors with Lotus Notes IDs

Inventors: Nimrod Megiddo/Almaden/IBM, Kevin McCurley/Almaden/IBM

Inventor Name > denotes primary contact	Inventor Serial	Div/Dept	Manager Serial	Manager Name
> Megiddo, Nimrod	645231	22/K53D	329461	Fagin, Ronald
McCurley, Kevin S.	210474	22/K53F	984805	Strong, H. Raymond (Ray)

Inventors without Lotus Notes IDs

IDT Selection

IDT Team:	Attorney/Patent Professional:
Richard Ludwin/Almaden/IBM;	Richard Ludwin/Almaden/IBM;
Suzanne Pautlitz/Almaden/IBM;	

Response Due to IP&L : 03/19/2000

Main Idea

*Title of disclosure (in English)
A System and Method for Efficient Retrieval of Web URLs

*Idea of disclosure
1. Describe your invention, stating the problem solved (if appropriate), and indicating the advantages of using the invention.
Universal Resource Locators (URL) on the web are designed to specify locations of resources but not necessarily in a compact way. For example, perhaps the most important features of a domain name are its intuitive message and the ease of memorizing it. Also, organizations prefer the

A System and Method for Effici.. .. Retrieval of Web URLs - continued

domain name to be identical to the organization name, for example, www.judicialwatch.org.
The URL usually has a path to some file following the domain name, and names of directories on
the path can also be long. So, URLs can be quite long to the extent that in certain applications it
would be impossible to use the URL without compression. Such a difficulty arises at least in the
following situations:
- A large number of URLs have to be kept in RAM.
- A large number of URLs have to be kept in a portable device with limited storage.
- URLs have to be embedded efficiently within some digital contents.
- URLs have to be transmitted efficiently.
- URLs have to be embedded in printed bar codes.

The invention proposes two kinds of encoding that address this issue and suggest a business
opportunity.

2. How does the invention solve the problem or achieve an advantage,(a description of "the
invention", including figures inline as appropriate)?

a. A code server of registered URLs.
According to this idea a service is proposed that can be turned into a business. The service invites
URLs to be registered on a server that attaches to them compact codes. This server acts as a "code
server" that runs at some address, for example, codes.ibm.com. It maintains a database of all the
URL's that have been requested by *anybody* to be registered, and it maps them in a one-to-one
fashion into compact codes. For example, the URL
http://www.suntimes.com/output/novak/novak201.html may be encoded as Qa2yz.
Instead of using the original URL, users can then use http://codes.ibm.com?key=Qa2yz and an
HTTP redirect would then take them to the real site. This solution has the added advantage that IBM
could run the site to provide referrals, and perhaps scrape off royalties from each clickthrough. That
means the royalty stream can be based on number the number of referrals rather than a fixed cost
for the technology.

b. A system that encodes the pages of each domain individually.
Instead of a single code server, a system is proposed that individually assigns codes to the URLs at
each participating domain. Domain owners may either ask the system to assign codes for them or
run the software themselves. A domain owner may also be asked by a frequent client of that domain
(or a broker that takes clients to the domain) to agree to install the coding system on the domain
server for improving the ease of access (in some cases it may be necessity from the broker's
viewpoint rather than just ease of access). For example, if suntimes.com installs the coding
system, then the file output/novak/novak201.html on its file system may be encoded more
compactly, for example, by A2gd, and then the URL http://www.suntimes.com/A2gd would
redirect to the appropriate file.

Long domain names do not present a major problem since they can be replaced by IP addresses
anyway, i.e., www.suntimes.com may be equivalent to an address of the form 72.3.109.110 .

3. If the same advantage or problem has been identified by others (inside/outside IBM), how have
those others solved it and does your solution differ and why is it better?
Not known

4. If the invention is implemented in a product or prototype, include technical details, purpose,
disclosure details to others and the date of that implementation.

*Critical Questions (Questions 1 - 7 must be answered)

A System and Method for Effici... Retrieval of Web URLs - continued

*Question 1
On what date was the invention workable? . 12/01/99 . Please format the date as MM/DD/YYYY
(Workable means i.e. when you know that your design will solve the problem)

*Question 2 Is there any planned or actual publication or disclosure of your invention to anyone outside IBM?	○ Yes ● No
If yes, Enter the name of each publication or patent and the date published below. Publication/Patent: Date Published or Issued:	
Are you aware of any publications, products or patents that relate to this invention?	○ Yes ● No
If yes, Enter the name of each publication or patent and the date published below. Publication/Patent: Date Published or Issued:	

*Question 3 Has the subject matter of the invention or a product incorporating the invention been sold, used internally in manufacturing, announced for sale, or included in a proposal?	○ Yes ● No
Is a sale, use in manufacturing, product announcement, or proposal planned?	○ Yes ● No

If Yes, identify the product if known and indicate the date or planned date of sale, announcements, or proposal and to whom the sale, announcement or proposal has been or will be made.
     Product:
Version/Release:
    Code Name:
        Date:
      To-Whom:
If more than one, use cut and paste and append as necessary in the field provided.	

*Question 4 Was the subject matter of your invention or a product incorporating your invention used in public, e.g., outside IBM or in the presence of non-IBMers?	○ Yes ● No
If yes, give a date: . Please format the date as MM/DD/YYYY	

*Question 5 Have you ever discussed your invention with others not employed at IBM?	○ Yes ● No
If yes, identify individuals and date discussed. Fill in the text area with the following information, the names of the individuals, the employer, date discussed, under CDA, and CDA #.	

*Question 6 Was the invention, in any way, started or developed under a government contract or project?	○ Yes ● No ○ Not sure
If Yes, enter the contract number	

*Question 7 Was the invention made in the course of any alliance, joint development or other contract activities?	○ Yes ● No ○ Not Sure
If Yes, enter the following :Name of Alliance, Contractor or Joint Developer	

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A System and Method for Effici... Retrieval of Web URLs - continued

Contract ID number	
Relationship contact name	
Relationship contact E-mail	
Relationship contact phone	

Question 8
Have you submitted, or are you aware of, any related disclosure submission? ● Yes ○ No

If Yes, please provide the title and docket or disclosure number below:
ARC8-1999-0349 and ARC-1999-350

Question 9
What type of companies do you expect to compete with inventions of this type? *Check all that apply.*

- ☐ Manufacturers of enterprise servers
- ☐ Manufacturers of entry servers
- ☐ Manufacturers of workstations
- ☐ Manufacturers of PC's
- ☐ Non-computer manufacturers
- ☐ Developers of operating systems
- ☒ Developers of networking software
- ☒ Developers of application software
- ☒ Integrated solution providers
- ☒ Service providers
- ☐ Other (Please specify below)

Patent Value Tool (Optional - this may be used by the inventor and attorney to assist with the evaluati

(The Patent Value tool can be used by you or the evaluation team to determine the potential licensing value of your invention.)

The **Patent Value Tool** has not yet been used to calculate a score.

Post Disclosure Text & Drawings
Enter any additional information relating to this disclosure below:

(Form Revised 12/17/97)

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